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Annual Report

of the

MEDICAL OFFICER OF HEALTH

for 1951

Swale (Widnes) Limited, Printers

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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH
1951

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

Ladies and Gentlemen,

I have the honour to present to you the Annual Report on the Health of Widnes for 1951, and I am happy to report that the health of the Borough compares favourably with that of previous years.

The birth rate showed a slight decrease, being 20.5 per 1,000 compared with 21.5 per 1,000 in 1950, but was still much higher than the rate for England and Wales which was 15.5 per 1,000.

The crude death rate showed a slight increase, being 11.4 per 1,000 compared with 11.3 per 1,000 in 1950. This compares favourably with the death rate for England and Wales, which was 12.5 during 1951.

I am happy to report that the infant mortality rate continues to decline; the rate being 36 per 1,000 live births compared with 51 in 1950 and 53 in 1949. There was one maternal death during the year.

The incidence of infectious disease was less than during the previous year. There were 613 cases notified, compared with 1,191 during 1950. The decrease was due in the main to a decrease in measles. There was a further reduction in the incidence of whooping cough and scarlet fever. For the second year in succession no case of diphtheria was notified. Four cases of Para-typhoid were notified during the year but no connection could be discovered between these cases or indeed with any other case of Paratyphoid notified on Merseyside. Detailed investigations were carried out in an effort to ascertain the source of infection, and it is not unreasonable to suppose that this source lay elsewhere outside the Borough.

Sixty-eight cases of respiratory tuberculosis were notified, compared with forty-seven cases the previous year. There were twenty deaths from this disease during the year.

Widnes like many other districts in the North-West bore the brunt of the influenza epidemic experienced throughout the country at the beginning of the year. Twenty-seven deaths were certified as being due to influenza compared with seven during the previous year. It is interesting to note however, that there was no apparent increase in deaths certified as due to pneumonia and bronchitis, although twenty one cases of pneumonia were notified compared with thirteen during the previous year.

I am happy to report that, compared with last year, there has been a marked reduction in the number of accidents of different kinds. A detailed summary can be found in the body of the report.

In last year's report a statistical comparison was made between the year under review and the start of the century. This year I thought it of interest to show a comparison between the statistics under review and those for 1931. It is interesting to note the very definite improvement that has taken place in the short course of twenty years.

The work of the Sanitary Department has continued at a high level during the year. Inspectors have visited 8,137 premises, a number which compares favourably with the visits carried out in 1950. There were 3,619 defects or nuisances discovered during the year. Particular attention was again paid to the supervision of food premises to ensure that all commodities were prepared, stored and sold in a hygienic manner. 550 visits were paid to these premises. In addition the department has continued to give every assistance to the Widnes Hygienic Food Traders' Guild. Much of the Inspectors' time during the middle of the year was devoted to the department stalls at the Trade and Industry and Local Government Exhibitions which were held during Festival Year.

There is little to add to my observation in previous reports upon the unsatisfactory housing situation, an unsatisfactory situation which is shared with many other districts throughout the country. During the year a detailed survey of all houses in the Borough was completed. The object of this survey being the assessment of the state of repair of all property showing amongst other things a list of those houses most needful of demolition or clearance. Details of this survey will be found in the body of the report.

Of the total number of houses in the Borough, which was 12,479, it was found that 2,374 houses were not in all respects reasonably fit for human habitation.

In conclusion I would like to take this opportunity of expressing my thanks to the Health Committee for their support and encouragement during the year, and also to the officials of the Corporation, and in particular to Mr. E. F. Starkey, Senior Sanitary Inspector, for their assistance at all times.

I am, Ladies and Gentlemen,

Your obedient Servant,

F. W. BUNTING,

Medical Officer of Health

GENERAL STATISTICS

Area of Borough in acres	6,178
Population at Census, 1931	40,619
,, Estimated, 1951	48,750
Density of Population (i.e. No. of persons per acre) ...	7.89
No. of Inhabited Houses (1931 Census)	8,641
No. of Inhabited Houses (End of 1951 according to rate book)	12,912
Rateable Value	£258,252
Sum represented by 1d. rate	£1,010

EXTRACTS FROM VITAL STATISTICS OF THE YEAR

Number of Births: Males 534, Females 467		1,001
Birth-rate per 1,000 of the Population		20.5
Number of Deaths: Males 296, Females 260		556
Death-rate per 1,000 of the Population	Crude ...	11.4
	Adjusted	14.4
Excess of Births over Deaths		445
Number of Deaths of Infants (under age of one year)		36
Infant Mortality per 1,000 Births		36
Deaths from Influenza		27
Death-rate from Influenza per 1,000 of the population		.55
Death-rate from Cancer		1.75
Death-rate from Phthisis		.41
Maternal Mortality Rate per 1,000 Births		.98
Number of women dying in consequence of child birth—		
From Sepsis		—
Other Causes		1
Deaths from Measles (all ages)		—
,, ,, Whooping Cough (all ages)		—
,, ,, Diarrhoea (under 2 years of age)		4
Percentage of total Deaths occurring in Public Institutions		44.9

ANALYSIS OF VITAL STATISTICS

POPULATION—

The population returns since 1861 are given below :—

Year	Population	Inhabited houses	Average per house
1861	6,893	1,150	5.99
1871	14,359	2,519	5.66
1881	24,918	4,994	5.0
1891	30,011	5,121	5.86
1901	28,580	5,350	5.34
1911	31,544	6,102	5.16
1921	38,879	7,437	5.22
1931	40,619	8,534	4.63
Est. 1951	48,750	12,912	3.77

The Registrar General's estimate of the population for the year 1951 was 48,750. This is, therefore, a decrease of 50 from the estimated population for 1950.

BIRTHS—

	Total	Males	Females	
Legitimate	950	516	434	Birth-rate (R.G.) 20.5
Illegitimate	51	18	33	

Birth-rate for England and Wales 15.5

ILLEGITIMATE BIRTHS—

The percentage of births, which were illegitimate, during each of the past 15 years is as follows:—

1937 ...... 3.1 per cent.
1938 ...... 2.4 per cent.
1939 ...... 2.4 per cent.
1940 ...... 4.7 per cent.
1941 ...... 4.1 per cent.
1942 ...... 5.2 per cent.
1943 ...... 6.0 per cent.
1944 ...... 5.6 per cent.
1945 ...... 9.8 per cent.
1946 ...... 7.0 per cent.
1947 ...... 4.7 per cent.
1948 ...... 4.5 per cent.
1949 ...... 4.3 per cent.
1950 ...... 4.5 per cent.
1951 ...... 5.1 per cent.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1951—

CAUSES OF DEATH	All ages	Under 1 year	1 — 5 years	5 — 15 years	15 — 25 years	25 — 45 years	45 — 65 years	65 — 75 years	Over 75 years
Tuberculosis (Respiratory)	20	—	—	—	2	8	5	4	1
„ (other)	2	—	1	—	—	1	—	—	—
Syphilitic Disease	—	—	—	—	—	—	—	—	—
Diphtheria	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	—	—	—
Meningococcal Infection ...	—	—	—	—	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	—	—
Other infective and parastic diseases	3	—	—	1	1	—	—	1	—
Malignant Neoplasm—									
Stomach	22	—	—	—	—	2	12	6	2
Lung, Bronchus	23	—	—	—	—	3	12	3	5
Breast	5	—	—	—	1	1	—	2	1
Uterus	2	—	—	—	—	1	—	1	—
Other malignant and lymphatic neoplasms	34	—	1	—	1	4	12	8	8
Leukaemia, aleukaemia ...	2	—	1	—	—	—	—	1	—
Diabetes	5	—	—	—	—	—	2	2	1
Vascular Lesions of nervous system	55	3	—	—	1	4	12	16	19
Coronory disease, Angina ...	41	—	—	—	—	1	20	13	7
Hypertension with heart disease	20	—	—	—	—	1	3	10	6
Other heart diseases	99	1	—	—	1	8	13	25	51
Other circulatory diseases ...	20	—	1	—	1	3	5	6	4
Influenza	27	—	—	—	—	3	8	9	6
Pneumonia	20	3	—	—	—	—	3	4	10
Bronchitis	38	1	—	—	—	1	11	13	12
Other diseases of respiratory system	10	1	—	—	—	—	5	4	—
Ulcer of stomach and duodenum	9	—	—	—	—	1	2	5	1
Gastritis, enteritis and diarrhoea	7	4	1	—	—	—	1	1	—
Nephritis and nephrosis ...	4	—	—	1	—	—	3	—	—
Hyperplasia of Prostate ...	3	—	—	—	—	—	—	1	2
Pregnancy, childbirth, abortion	1	—	—	—	—	1	—	—	—
Congenital malformations ...	6	6	—	—	—	—	—	—	—
Other diseases	60	16	—	—	—	—	4	12	28
Motor vehicle accidents ...	2	—	—	—	2	—	—	—	—
All other accidents	11	1	1	—	1	1	2	—	5
Suicide	5	—	—	—	—	—	4	1	—
Homicide and War	—	—	—	—	—	—	—	—	—
Totals ...	556	36	7	2	11	44	139	148	169

DETAILS OF DEATHS DUE TO ACCIDENTS DURING 1951—

The following is a summary of the deaths due to accident during 1951, indicating the ages of the deceased.

CAUSE OF DEATHS	Under 1 yr.	1—5 yrs.	5—15 yrs.	15—45 yrs.	45—65 yrs.	Over 65 yrs.	Total
Road traffic accidents	—	—	—	2	—	—	2
Falls	—	—	—	—	1	4	5
Drowning	—	—	—	—	—	1	1
Works accidents	—	—	—	1	—	—	1
Burns	—	—	—	—	1	—	1
Asphyxia	1	1	—	—	—	—	2
Coal Gas Poisoning (acc.) ...	—	—	—	1	—	—	1
Totals in age groups ...	1	1	—	4	2	5	13

The following is a summary of the deaths of persons belonging to Widnes, which occurred in institutions during the year 1951:—

Widnes Maternity Home (Infants 3)	3
Whiston County Hospital (Infants 16)	206
St. Helens Hospital	2
St. Helens Providence Hospital (Infants 1) ...	3
Warrington Infirmary (Infants 1)	1
Warrington General	7
Warrington Isolation Hospital	1
Rainhill Hospital	3
Liverpool Southern Hospital	1
,, Belmont Road Hospital	2
,, Walton Hospital	3
,, Aintree Hospital	1
,, Alder Hey Hospital (Infants 1) ...	2
,, Smithdown Road Hospital	2
,, St. Vincents Hospice	2
Ormskirk County Hospital	3
Other hospitals (Infants 1)	6
Total	248

The following table summarises the Vital Statistics of the Borough:—

	Live Births		Deaths (all causes)		Stillbirths		Maternal Mortality		Infant Mortality			
									Total		Neo-natal	
	No. Regis-tered	Rate per 1,000 pop'n	No. Regis-tered	Rate per 1,000 pop'n	No. Regis-tered	Rate per 1,000 total births	No. of deaths regis-tered	Rate per 1,000 total births	No. of deaths regis-tered	Rate per 1,000 live births	No. of deaths regis-tered	Rate per 1,000 live births
Year 1951	1001	20.5	556	11.4	22	22	1	0.98	36	36	23	23
Year 1950	1050	21.5	549	11.3	29	27	1	0.93	54	51	25	24
,, 1949	1013	21.1	514	10.7	23	22	Nil	Nil	54	53	—	—
,, 1948	1086	22.8	473	9.9	26	23	Nil	Nil	66	60	—	—
,, 1947	1254	27.1	558	12.1	18	14	Nil	Nil	93	74	—	—
,, 1946	1145	25.5	510	11.3	43	36	2	1.68	82	71	—	—
Avge 5 years 1946–1950	—	23.6	—	11.1	—	24	—	0.53	—	63	—	—

Adjusted (live birth-rate (comparability factor 1.01) — 20.7 per 1,000
(death-rate (comparability factor 1.26) — 14.4 ,, ,,

In my annual report of last year I presented some comparative figures between 1900 and 1950. The following figures show a comparison between certain statistics for 1931 and 1951, a period of 20 years.

	1931	1951
Estimated population	40,980	48,750
Birth Rate per 1,000 of population	19.7	20.5
Death Rate per 1,000 of population	13.1	11.4
Infant Mortality per 1,000 births	82	36
Maternal mortality	3.70	0.98
Deaths from Measles	9	—
,, ,, Whooping Cough	6	—
,, ,, Diphetheria	2	—
,, ,, Scarlet Fever	—	—
,, ,, Respiratory Tuberculosis	40	20
,, ,, Other Tuberculosis	7	2
Deaths under 65 years of age— percentage of total	62.75	43.11

INFANT MORTALITY

The causes of Deaths of Infants during 1951 are recorded in the following table.

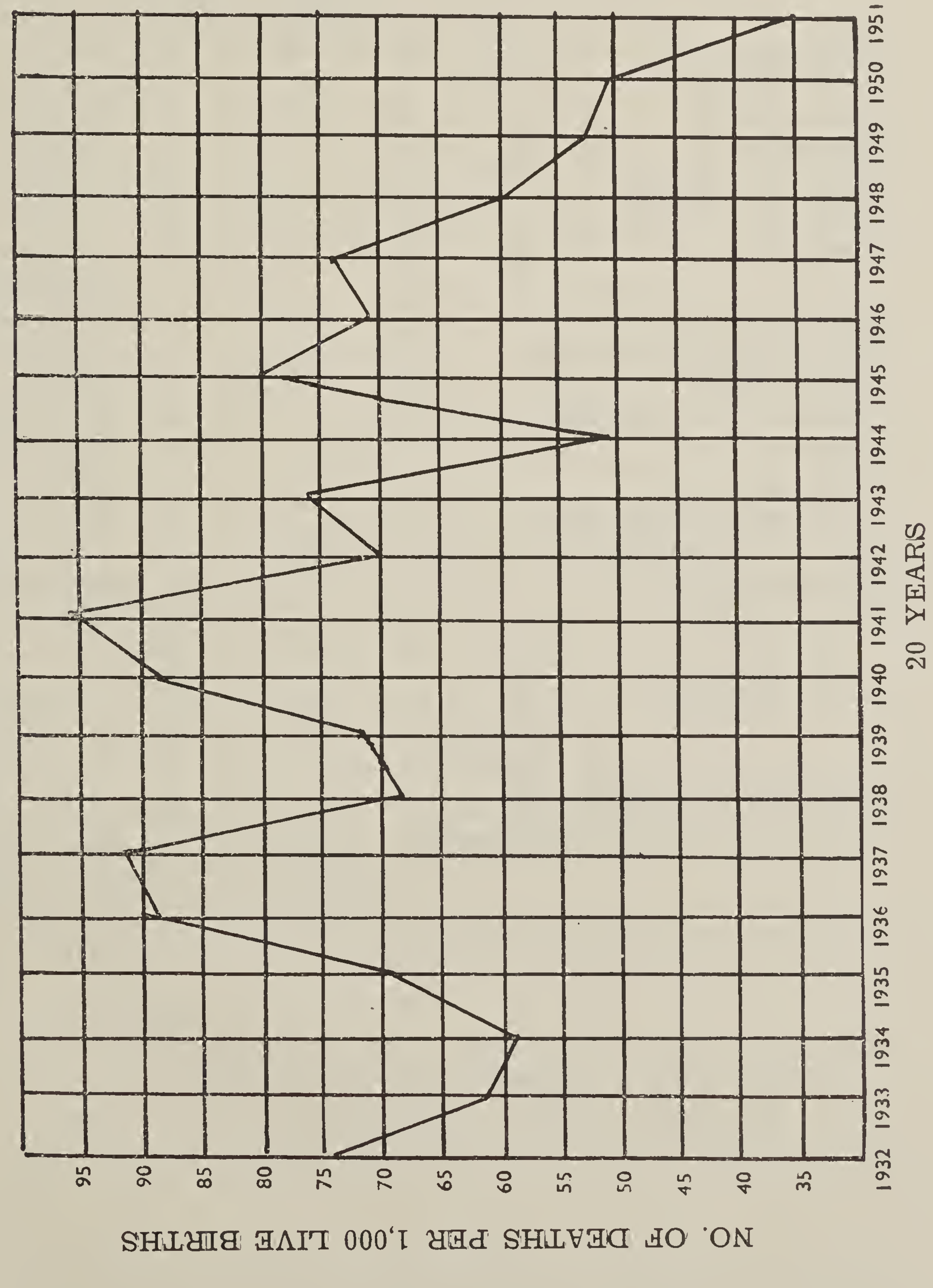
CAUSE OF DEATH	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 4 Weeks	4 Weeks and under 3 Months	3-6 Months	6-9 Months	9-12 Months	Total Deaths under 1 Year
Whooping Cough	—	—	—	—	—	—	—	—	—	—
Gastro Enteritis	—	—	—	—	—	—	3	1	—	4
Pneumonia	—	—	—	—	—	1	1	1	—	3
Congenital Defects ...	2	—	1	1	4	1	—	—	1	6
Congenital Debility ...	6	—	—	—	6	—	—	—	—	6
Digestive Diseases ...	—	—	—	—	—	—	—	—	—	—
Premature Births	10	1	—	—	11	1	—	—	—	12
Bronchitis	—	—	—	—	—	1	—	—	—	1
Circulatory failure ...	—	—	—	—	—	—	—	—	—	—
T.B. (Non. resp.)	—	—	—	—	—	—	—	—	—	—
Asphyxia	—	—	—	1	1	1	—	—	—	2
Other causes	1	—	—	—	1	—	—	1	—	2
Totals ...	19	1	1	2	23	5	4	3	1	36

It will be seen that the number of deaths among infants under one year was 36. This represents an infant mortality rate of 36 per 1,000 live births which compares favourably with a rate of 63 per 1,000 live births for the preceding five year period.

This is the ~~fifth~~ fourth year in succession in which there has been a reduction in the infant mortality rate.

It will however be noted that as in previous years the chief group in the above table is one related to premature births. I am happy to report that there has been a definite decrease in the incidence of deaths from pneumonia.

GRAPH SHOWING NUMBER OF INFANT DEATHS EACH YEAR
FROM 1932 to 1951, A PERIOD OF 20 YEARS



LABORATORY FACILITIES—

Bacteriological Examinations—

The number of specimens examined in 1951 was:

Para-typhoid.........	40	General.........	2

The number of bacteriological examinations carried out in 1950 was six.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASE

(i) *NOTIFIABLE DISEASES DURING THE YEAR—*

DISEASE		Total cases notified	Cases admitted to Hospital	Total Deaths
Diphtheria		—	—	—
Scarlet Fever		89	71	—
Para-typhoid		4	4	—
Dysentery		1	—	—
Puerperal Pyrexia		1	—	—
Malaria		—	—	—
Pneumonia		21	—	20 (all forms)
Erysipelas		5	—	—
Ophthalmia Neonatorum ...		1	—	—
Enteric Fever		—	—	—
Meningococcal Infection		—	—	—
Measles		324	2	—
Whooping Cough		83	2	—
Acute Polio-encephalitis ...		—	—	—
Acute Poliomyelitis		1	1	—
Food Poisoning		3	—	—
Tuberculosis—				
(a) Pulmonary ...	M	40	—	10
	F	28	—	10
	Total ...	68	—	20
(b) Non-Pulmonary	M	5	—	—
	F	7	—	2
	Total ...	12	—	2

(ii) *ANALYSIS OF NOTIFIABLE DISEASES IN AGE GROUPS—*

DISEASE	CASES NOTIFIED												
	Years												
	Total Cases at all Ages	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	89	—	—	9	10	19	48	2	—	1	—	—	—
Measles ...	324	19	31	48	56	64	100	3	3	—	—	—	—
Whooping Cough	83	13	14	17	16	11	10	—	2	—	—	—	—
Meningococal Infection	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	1	—	—	—	—	—	—	—	—	—	—	—	1
Para-typhoid	4	—	—	1	—	—	1	1	—	1	—	—	—
Pneumonia	21	1	—	1	—	—	—	—	1	3	2	4	9
Erysipelas	5	—	—	—	—	—	—	—	—	—	—	3	2
Ophthalmia Neonatorum	1	1	—	—	—	—	—	—	—	—	—	—	—
Puerperal Pyrexia	1	—	—	—	—	—	—	—	—	—	1	—	—
Acute Polio-encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute Polio-myelitis	1	1	—	—	—	—	—	—	—	—	—	—	—
Food Poisoning	3	—	—	—	—	—	—	3	—	—	—	—	—
Resp. Tuberculosis													
M.	40	1	—	—	—	—	2	3	4	9	5	13	3
F.	28	—	—	—	1	—	1	1	7	10	4	3	1
Non-Resp.													
M.	5	—	1	—	1	—	—	—	1	1	—	1	—
F.	7	—	—	1	—	—	—	2	1	1	1	1	—
Totals	613	36	46	77	84	94	162	15	19	26	13	25	16

OPHTHALMIA NEONATORUM—

There was one case of Ophthalmia Neonatorum during the year

SCARLET FEVER—

Eighty-nine cases were notified during the year. The numbers of cases notified during the preceding five years were:
1946—240; 1947—88; 1948—99; 1949—150; 1950—95.

There were no deaths during the year and the cases were all of a mild type.

ACUTE ANTERIOR POLIOMYELITIS—

There was one case of acute anterior poliomyelitis notified during the year compared with four cases during the previous year.

DIPHTHERIA—

The following Table gives the incidence of this disease during the past 12 years:—

Year	No. of Cases	No. of Deaths	Year	No. of Cases	No. of Deaths
1940	200	6	1946	19	0
1941	160	9	1947	4	0
1942	95	4	1948	0	0
1943	30	2	1949	2	0
1944	23	0	1950	0	0
1945	14	0	1951	0	0

None of the fatal cases recorded in the above table had been immunised.

The low incidence of Diphtheria in the Borough is directly attributable to the high percentage of children who are immunised against diphtheria.

TUBERCULOSIS—

The number of cases of Tuberculosis and of all deaths from the disease during 1951 will be found in the following table:—

Age Periods	NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M	F.
Years Under 1	1	—	—	—	—	—	—	—
1-4	—	1	2	1	—	—	—	1
5-9	2	1	—	—	—	—	—	—
10-14	2	1	—	2	—	—	—	—
15-19	4	7	1	1	—	—	—	—
20-24	2	7	—	—	—	2	—	—
25-34	6	3	1	1	2	2	—	1
35-44	6	4	—	1	2	2	—	—
45-54	9	2	1	—	1	1	—	—
55-64	5	1	—	1	1	2	—	—
65 upwards	3	1	—	—	4	1	—	—
	40	28	5	7	10	10	—	2
Totals	68		12		20		2	

The ratio of non-notified tuberculosis deaths over notified was 1/11.

During the year eleven non-pulmonary cases were reported to have become quiescent, and a case previously notified as pulmonary tuberculosis was not confirmed.

The following table gives the incidence of tuberculosis during the past 30 years:—

Annual Average	Pulmonary Tuberculosis Case rate per 1,000 of population	Pulmonary Tuberculosis Death rate per 1,000 of population	Non-Pulmonary Tuberculosis Case rate per 1,000 of population	Non-Pulmonary Tuberculosis Death rate per 1,000 of population
1921/1925 ...	1.58	0.94	1.16	0.19
1926/1930 ...	1.43	0.87	1.09	0.20
1931/1935 ...	1.07	0.81	0.79	0.23
1936/1940 ...	0.88	0.61	0.58	0.13
1941/1945 ...	0.95	0.67	0.52	0.11
1946/1950 ...	1.11	0.51	0.39	0.09
1951 ...	1.39	0.41	0.24	0.04

There was a substantial increase in notifications of respiratory tuberculosis during the year; 68 cases being notified compared with 47 the previous year. With the health of the Borough improving steadily year by year in all other respects the fact that the incidence of respiratory tuberculosis remains high is a serious obstacle to our progress.

Nevertheless the situation is not quite so serious as it appears at first sight. Deaths from this disease have dropped considerably over the past few years and have remained low for the year under review. Deaths during the year 1931 numbered 40 or 0.97 per 1,000 of the population, whilst in 1951 they numbered 20 or .41 per 1,000 of the population.

There is little doubt that the diagnosis of tuberculosis is being made much more accurately and at a much earlier stage in the disease. This naturally results in more cases coming to the notice of the Public Health Department. The detailed and repeated examination of contacts by Chest Physicians has also brought to light many cases in the very early stages of the disease.

It is of interest to note that of the 68 cases of respiratory tuberculosis notified, 17 have a definite history of the disease being present in one or more members of the family.

The incidence of non-respiratory tuberculosis however, continues to decline. There were only 12 cases and 2 deaths during 1951 compared with 26 cases and 7 deaths in 1931.

SANITARY CIRCUMSTANCES OF THE AREA

WATER SUPPLY—

The water supply of the Borough is obtained by pumping from deep wells in red sandstone formations. Seventy eight samples of the raw water were examined by the Bacteriologist and five by the Analyst of the City of Liverpool and were found to be satisfactory.

In order to exclude from amongst employees of the Water Department the existence of carriers of excremental disease further examinations were carried out by the City Bacteriologist.

Six specimens of faeces and urine for examination for enteric organisms, and one specimen of blood for Widal reaction were submitted in respect of each man, over a period of four months.

The results were in all cases satisfactory.

CLOSET ACCOMMODATION—

There are 42 privy middens but they are situated in the rural parts of the Borough and cannot be converted owing to the absence of adequate sewers. There are thirteen waste closets in existence, and it is calculated that 12,870 houses are provided with fresh water closets.

REFUSE REMOVAL—

This work is carried out entirely by the Highways Department, for which purpose covered vehicles are used. There are 12 dry ashpits and 30 ashpits attached to privies. The remaining houses in the Borough are provided with portable bins.

SANITARY INSPECTION OF THE DISTRICT—

A record of the work of the Sanitary Department is as follows:—

Defects or Nuisances:	No. Discovered ...	3,619
	No. Abated	2,289
	No. being dealt with	1,330
No. of Notices served	Informal	1,504
	Statutory	401
No. of Legal Proceedings taken		81
No. of premises visited		8,137

Premises kept under observation	Number of Premises	Number of Inspections
Factories	189	288
Bakehouses	20	56
Slaughterhouses	—	—
Milkshops	113	120
Food Premises	198	550
Ice Cream Premises	77	82
Common Lodginghouses	5	80
Tents and Caravans	8	15
Visits to premises where cases of Infectious diseases have occurred	177	195
No. of premises disinfected after cases of Infectious Diseases · ...	145	—

DISINFESTATION—

20 houses belonging to the Corporation and 82 private dwellings were treated during the year because of verminous infestation.

In addition householders are encouraged to carry out disinfestation and are supplied with suitable insecticides.

RODENT CONTROL—

Two whole-time rodent operatives were employed by the Local Authority and carried out their work to the formula of the Ministry of Agriculture and Fisheries. A summary of the work carried out during the period is appended.

Premises	Number treated	Bait applied (lbs.)	Poison Bait applied (lbs).	Estimated Destruction		Bodies found	
				Rats	Mice	Rats	Mice
Public Sewers							
Manholes	1520	236	18	584	—	90	—
Dwellinghouses	275	149	141	440	928	82	162
Other premises	138	332	218	920	1769	203	366
Council Tips	3	97	45	138	—	43	—

During the year the department received 479 complaints; 234 were in respect of mice and 245 for rats. The premises concerned were, for mice: 24 factories, 23 shops, 151 dwellinghouses, 12 schools, 14 other premises. For rats: 3 tips, 24 factories, 20 schools, 6 shops, 154 dwellinghouses and 18 other premises.

A 100 per cent treatment of sewers was carried out during the year. The work was executed on a block system, taking each ward of the Borough separately.

INVESTIGATION OF ATMOSPHERIC POLLUTION AND SMOKE ABATEMENT—

During the year every effort was made to reduce the amount of atmospheric pollution due to the emission of smoke from factories within the Borough. Close liaison was maintained during the year with H.M. Inspector of Alkali Works.

The average deposit for the whole of the Borough during 1951 is estimated at 290.06 tons per square mile. This is an increase of 47.80 tons on the figures for the year 1950, when 242.26 tons per square mile was recorded.

There were 151 observations of factory smoke recorded and on 61 occasions (or 40%) emissions were in excess of the permitted standard. This shows an increase over 1950 when 183 observations gave 54 (or 29.5%) excessive emissions. Factory managements were interviewed or notified following each observation of excessive black smoke.

In the main, factory managements have endeavoured to cooperate with the department but much difficulty was experienced during the year as a result of unsuitable fuel and obsolete boiler plant; circumstances which were often beyond the power of the management to rectify as soon as they might wish.

The departmental equipment was further supplemented by the delivery and erection of a combined Anemobiagraph and Wind Direction Recorder which makes complete round the clock recordings of wind directions and velocities. This is particularly valuable in enabling the Department to pin point excessive emissions of smoke or gases at any given time. The Smoke Filter and Volumetric Sulphur Dioxide Apparatus from which recordings are made in milligrams per cubic metre of smoke and sulphur dioxide were also maintained in daily use. In addition maximum and minimum shade temperatures, humidity and barometric pressures are recorded daily.

The Consultative Smoke Abatement Committee, composed of three members of the Health Committee together with representatives from factory managements, gas and electricity undertakings, and women's associations, and in an advisory capacity H.M. Inspector of Alkali Works and a representative from the Ministry of Fuel and Power held two meetings during the year and paid visits to a local colliery and a factory power station.

In a further effort to publicise the work of the department and to instil a measure of smoke mindedness into the citizens of Widnes the opportunity afforded by the Local Trade and Industry exhibition during Festival Year was taken and a stall devoted to Atmospheric Pollution and Smoke Abatement was erected by the staff of the department. Much interest was shown by members of the public and a large number of leaflets on various aspects of the subject were distributed. Atmospheric Pollution and Smoke Abatement also held a prominent place in the Local Government Exhibition which followed.

During the year two members of the department were successful in passing the Smoke Inspector's Certificate of the Royal Sanitary Institute. There are now three qualified Smoke Inspectors in the Department.

Measurement of Deposited Matter with the Deposit Gauge:—

The amount of total solids in tons per square mile, and the average rainfall, during 1951 was as follows:—

Month	Health Centre	Liverpool Road	Crow Wood Hospital	Halebank	Farnworth	Average Rainfall inches
January	35.19	17.21	20.55	14.85	19.12	2.70
February	35.11	18.80	17.22	14.92	16.40	1.82
March	35.23	16.26	12.40	23.01	26.69	3.99
April	25.42	13.44	23.64	13.31	24.29	1.65
May	28.62	12.16	24.50	18.14	17.40	2.88
June	27.04	18.23	25.97	13.86	27.30	1.05
July	30.92	15.43	24.14	30.06	25.75	2.46
August	23.50	21.45	34.84	16.50	15.30	4.05
September	27.21	12.44	15.71	9.94	21.42	2.29
October	31.24	20.85	18.82	23.92	55.74	1.01
November	47.36	38.33	32.10	29.82	25.91	7.32
December	56.47	29.39	33.66	20.73	25.11	4.74
Monthly average	33.61	19.50	23.63	19.09	25.03	2.99

Measurement of Sulphur Dioxide with the Lead Peroxide Apparatus:

The measurement in milligrams of SO_3 per day per 100 square centimetres of lead peroxide during 1951 was as follows:

Month	Health Centre	Liverpool Road	Crow Wood Hospital	Halebank	Farnworth
January	3.88	3.06	3.25	2.08	2.13
February	4.49	3.11	3.41	1.83	1.85
March	3.42	2.30	1.82	2.28	1.45
April	2.82	1.62	2.32	1.41	0.99
May	3.62	1.84	1.36	2.62	1.31
June	2.32	1.37	1.44	1.14	1.01
July	2.09	1.04	1.71	0.71	0.76
August	2.15	1.22	1.60	0.69	1.14
September	3.22	1.73	1.83	1.21	1.41
October	3.72	2.36	1.98	2.17	1.24
November	4.10	2.53	2.99	2.04	1.49
December	4.49	3.18	3.00	1.33	1.93
Monthly average	3.36	2.11	2.22	1.62	1.39

INSPECTION AND SUPERVISION OF FOOD

(a) MILK SUPPLY—

The number of milk dealers other than cow-keepers on the register was one hundred and thirteen. Sixteen Dealers Licences for the distribution of Tuberculin Tested Milk, twenty-five for the distribution of Pasteurised milk, and one hundred and eleven for the distribution of Sterilised milk were issued. One Pasteuriser's Licence and one Supplementary Pasteuriser's Licence were also issued.

Ninety-five samples of pasteurised milk were submitted to the Liverpool City Bacteriologist for examination. All these samples were found to be of the required standard. This is highly satisfactory and a standard has been reached which I hope will be maintained by Pasteurisers retailing in Widnes. In addition twelve samples of raw milk and one sample of pasteurised milk were subjected to biological tests, principally for tuberculosis. These all proved to be negative though the Methylene Blue tests in respect of three of these samples produced unsatisfactory results. The County Milk Production Officer was acquainted with the details and he promised to visit the premises concerned.

During the year, 97 samples of milk were taken and submitted to the Liverpool City Analyst. There were 82 legal samples which included 16 "appeal to cow" samples and 15 non-legal samples. The results of the analysis proved the milk to be generally of a high standard. Thirteen samples were, however, found to be below the standard required, though in most cases insufficiently below to justify legal action. In these cases a warning was given. In other cases it was proved by "appeal to cow" samples that the milk was unadulterated in which case details were forwarded to the County Milk Production Officer who advises with regard to feeding, etc.

(b) ICE CREAM—

Departmental records show that during the year the manufacture and sale of ice cream was carried out from 77 premises. There were five manufacturers but only one firm produced on a large scale. The conditions obtaining in these premises were found, upon inspection, to be generally satisfactory. The appropriate sections of the Food and Drugs Act were strictly enforced and it was found that dealers and manufacurers were ready to co-operate with Sanitary Inspectors in this respect.

On the 1st March, 1951, a Ministry of Food Order, The Food Standards (Ice Cream) Order, 1951, came into force, prescribing a minimum standard for the composition of ice cream. Early in the year, and thereafter upon registration, ice cream manufacturers and dealers within the Borough were supplied with copies of the Order and were at the same time urged to take every care that the provisions of the Order were complied with. It was, in most cases, found upon analysis that samples were well above the minimum standard.

Eleven samples were bacteriologically examined and classified as follows:

Grade 1 — 8 samples   Grade 2 — 1 sample
Grade 3 — 1 ,,   Grade 4 — 1 ,,

Medical Officers of Health of the place of origin of the unsatisfactory samples were informed, and in one instance I was informed that the cause was a defect in manufacturing plant, which was immediately rectified.

Eighteen further samples were examined by the Analyst for the estimation of sugar and fat content and with two exceptions were found to be satisfactory. The two unsatisfactory samples were non legal and repeat samples were found to be above the standard laid down.

Particular attention was again directed towards the cleanliness of road vehicles and to the equipment carried to ensure that the salesman in charge was able to maintain a reasonable standard of personal cleanliness. Vehicles were generally clean and carried the necessary fitments, but it often remained necessary to remind salesmen of their responsibilities in obtaining the maxmum advantage from such equipment.

FOOD PREPARATION—

During the year nine hundred and eight visits were made to premises where food is stored, prepared and sold. It was necessary to serve notices in fifteen instances where the conditions did not comply with the Food and Drugs Act, 1938. These notices were all complied with.

In the early part of the year I received a communication from the Food Executive Officer of this area suggesting, in the interests of clean food, a close liaison between his department and mine with regard to the issuing by him of the necessary permission to open food trading premises or catering establishments. As a result his authority is withheld until he has received word from this department that the premises are satisfactory and up to the standard required. A measure of co-operation on these lines was already in existence, but is now placed on a more satisfactory basis. During the year seventeen such applications were referred to my department and subsequently approved.

Systematic inspections of street trading and food delivery vehicles was continued during the year, and although continued improvement was evident it was necessary from time to time to issue warnings to drivers and salesmen with regard to contraventions of the Food and Drugs Act and the Food Handling Byelaws. In every instance owners of vehicles were informed and replied showing their concern and willingness to co-operate with us in our endeavour to ensure the hygienic handling and delivery of food.

Regular inspections were carried out on the food stalls in the Borough Market, which since the opening of the new Fish Market are, with the exception of fruit and vegetable stalls, all enclosed. These stalls were maintained in a clean condition and no contraventions were found.

There were only three cases of food poisoning brought to my notice during the year and these were of a mild nature.

(d) OTHER FOODSTUFFS—

The following articles of food were condemned as unfit for human consumption:—

185 tins fruit, 92 tins vegetables, 25 tins tomatoes, 5 tins soup, 34 tins and 20lb. fish, 105 tins evaporated milk, 18 tins condensed milk, 85 tins luncheon meat, 2,055 lb. boiled ham, 16 tins spaghetti, 363 puddings, 41 lb. dried fruit, 18 lb. fruit cake, 16 Swiss rolls, 70 lb. beef, 37 lb. jam, 2 bottles wine, 36 packets jelly, 18 jars pickles, 1 bottle almond essence, 4¾ lb. suet,, 3 lb. flour, 7 bottles vinegar, 3 bottles gravy browning, 2 jars meat paste, 14 bottles sauce, 83 packets and 2 lb. cheese, 1 tin chicken, 2 tins pork butts, 43 lb. whalemeat, 28 lb. baby food, 5 bottles coffee, 1 lb. butter, 17 lbs. and 6 tins sausage, 11 lbs. tinned rabbit, ¾ lb. braised kidney, 300 lb. Danish Biscuits, 16 tins veal, 1 tin pork and gravy, 3 tins mincemeat, 1 jar sandwich spread.

The following samples were examined by the Liverpool City Analyst:—

Milk	96	Pie filling	1
Ice-cream	18	Cream biscuits ...	1
Beef Sausage	6	Potatoes	2
Pork Sausage	3	Potato savouries ...	1
Fish Cakes	4	Beans	1

HOUSING

Number of New Houses erected during the year—

Total	130
(i) By the local authority—Traditional permanent houses (including 3 flats)	107
(ii) By other bodies or persons	23

Inspection of Dwellinghouses during the year—

1. (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	2,062
(b) Number of inspections made for purpose	4,745
2. (a) Number of dwellinghouses (included under sub-head 1 above) which were inspected and recorded under the Housing Consolidated Regulations 1925 and 1932	11
(b) Number of inspections made for the purpose	20

3. Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 66

4. Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation 2,309

Remedy of Defects during the year without Service of Formal Notice—

Number of defective dwelling-houses rendered fit in consequence of informal action by the local authority or their officers 500

Action under Statutory Powers during the year—

(a) Proceedings under Public Health Acts :

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 1,711

(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—

(a) By owners 301

(b) By local authority in default of owners Nil

(b) Proceedings under Sections 11 and 13 of the Housing Act, 1936 :—

(1) Number of dwelling-houses in respect of which Demolition Orders were made ... —

(2) Number of dwelling-houses demolished in pursuance of Demolition Orders ... ... —

(c) Proceedings under Section 12 of the Housing Act, 1936 :—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made ... ... —

Housing Act, 1936—Part IV—Overcrowding—

(a) Number of new cases of overcrowding reported during the year 266

(b) (i) Number of cases of overcrowding relieved during the year 152

(ii) Number of persons concerned in such cases 648

BOROUGH OF WIDNES. HOUSING SURVEY ANALYSIS REVISED TO DECEMBER 1951.

Ward	GROUP 1.				GROUP 2.		
	Houses below standard laid down in Housing Manual 1919			Total No. Unfit Houses	Houses of reasonable standard of fitness for habitation		Total No. All houses
	(a) Capable of repair—1919 Standard	(b) Incapable of repair—1919 Standard	(c) Included in (b) for early demolition	(d) (a) plus (b)	(e) Satisfactory except for minor remedial defect	(f) Suitable for improvement Hsg. Act 1949	(g) (d)+ (e)+ (f)
Appleton	90	9	3	99	1434	114	1647
Ditton	63	31	11	94	885	99	1078
Farnworth	33	2	2	35	1398	98	1531
Halton	130	54	14	184	1016	284	1484
Kingsway	14	1	—	15	1360	151	1526
Lowerhouse	88	23	3	111	1332	126	1569
Lugsdale	136	420	4	556	689	510	1755
Woodend	1103	177	29	1280	293	316	1889
Totals	1657	717	66	2374	8407	1698	12479
			Percentage	19%	68%	13%	100%

These figures include 3051 houses built and owned, and 136 controlled by the Corporation.

FACTORIES ACT, 1937

1. INSPECTIONS

Premises (1)	M/c line No. (2)	Number on Register (3)	Number of			M/c line No. (7)
			Inspections (4)	Notices Written (5)	Occupiers Prosecuted (6)	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities.	1	46	85	—	—	1
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority.	2	143	203	11	—	2
(iii) Other premises in which Section 7 is enforced by the Local Authority (excluding out - workers premises).	3	—	—	—	—	3
TOTAL		189	288	11	—	

2. CASES IN WHICH DEFECTS WERE FOUND

Particulars	M/c line No.	Number of cases in which defects were found				Number of cases in which prosecutions were instituted	M/c line No.
		Found	Remedied	Referred			
				To H.M. Inspector	By H.M. Inspector		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Want of cleanliness (S.1) ...	4	11	11	—	3	—	4
Overcrowding (S.2)	5	—	—	—	—	—	5
Unreasonable temperature (S.3)	6	—	—	—	—	—	6
Inadequate ventilation (S.4) ...	7	5	5	—	1	—	7
Ineffective drainage of floors (S.6.)	8	—	—	—	—	—	8
Sanitary Conveniences (S.7) : (a) insufficient	9	1	1	—	—	—	9
(b) unsuitable or defective	10	8	8	—	3	—	10
(c) not separate for sexes ...	11	1	1	—	—	—	11
Other offences (not including offences relating to Home-work)	12	—	—	—	—	—	12
TOTAL	—	26	26	—	7	—	—